DrumMic'a!

Manual

POWERED BY KONTAKT SOFTWARE TECHNOLOGY

NEUMANN.BERLIN

SENNHEISER

SABIAN
SABIAN
SABIAN
SABIAN

Disclaimer

The information in this document is subject to change without notice and does not represent a commitment. The software described by this document is subject to a License Agreement and may not be copied to other media. No part of this publication may be copied, reproduced or otherwise transmitted or recorded, for any purpose, without prior written permission by Sennheiser Vertrieb und Service GmbH & Co. KG. All other trade marks are the property of their respective owners and use of them does not imply any affiliation with or endorsement by them.

SABIAN
AAX
SABIAN
AAX
SABIAN
AAX
SABIAN
AAX

Table Of Content

1 Installation & Configuration 6
1.1 Installation Manual 7

2 Introduction 8
2.1 What's behind the DrumMic'a! Software? 9

3 An in-detail look – Production technique 12
3.1 First Steps – Overview 14
3.2 The Microphones 15
3.2.1 Hi-Hat 16
3.2.2 Bass Drum (inside) 18
3.2.3 Bass Drum (outside) 20
3.2.4 Snare (top) 21
3.2.5 Snare (bottom) 22
3.2.6 Toms 23
3.2.7 Overheads 23

4 Operating the DrumMic'a! 25
4.1 BEATS – Menu 27
4.2 DRUMS – Menu 30
4.3 MIXER – Menu 31
4.3.1 Effect – Section 39
4.4 Microphone Selection – Menu (MIC SEL) 45
4.5 OPTION-Menu 47

5 Glossary 56

1 Installation & Configuration

1 Installation & Configuration

In order to run DrumMic'a! without problems, your computer and operating system should fulfill the minimum specifications listed below.

1.1 System Requirements

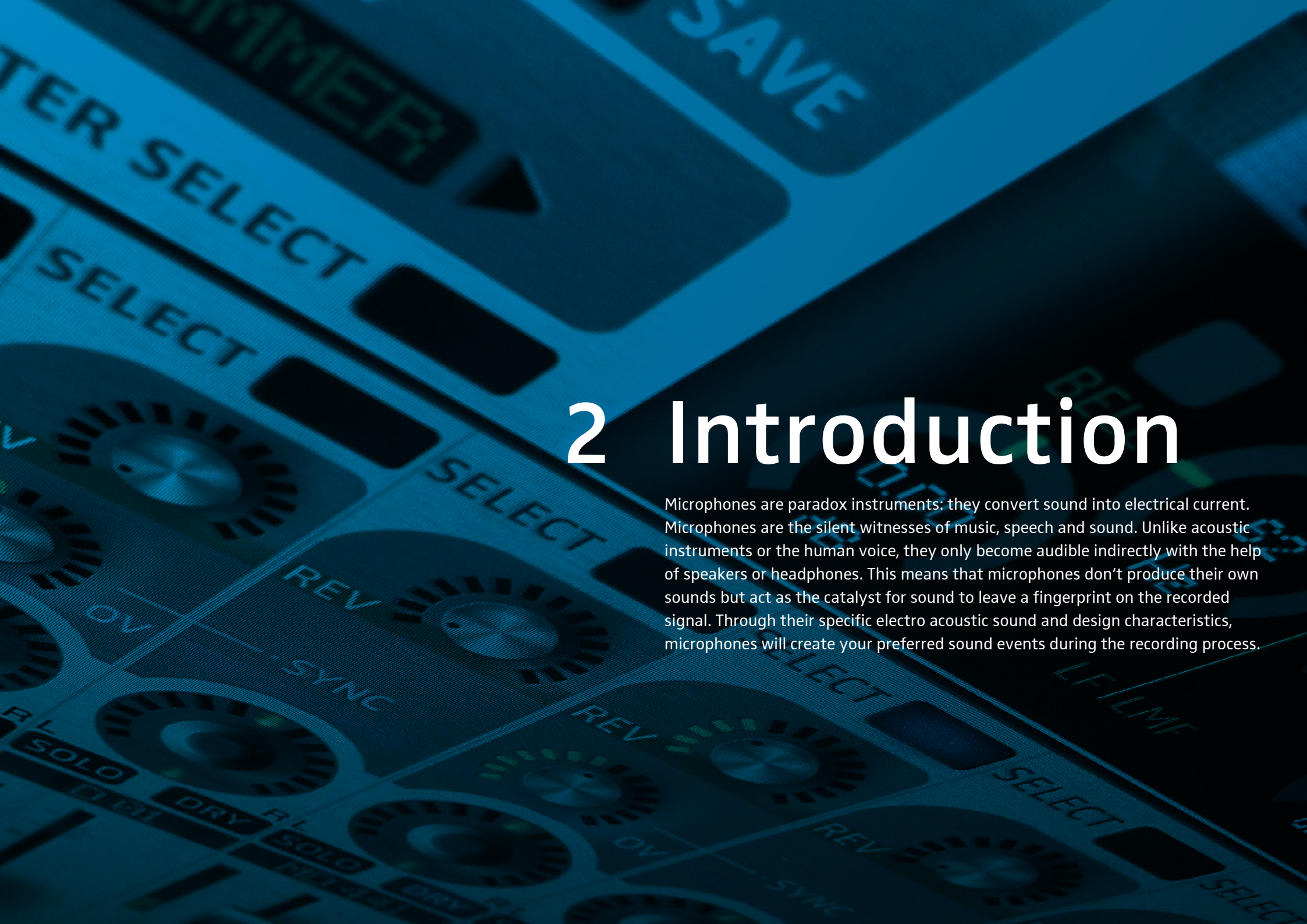
WINDOWS
Windows 7 or Windows 8 (current Service Pack, 32/64 Bit), Intel Core Duo or AMD Athlon 64 X2, 2 GB RAM (4 GB recommended)

MAC
Mac OS X 10.7 or 10.8 (latest Update), Intel Core 2 Duo, 2 GB RAM (4 GB recommended)

INTERFACE
Stand-alone, VST, Audio Units
AAX Native (Pro Tools 10), RTAS
ASIO, CoreAudio, WASAPI

12 GB free disc space
DVD-Drive for DVD installation

DrumMic'a! comes along with its own installer, which will install the DrumMic'a software as well as the free KONTAKT Player Software. Please launch the installer and follow the instructions.



2 Introduction

Microphones are paradox instruments: they convert sound into electrical current. Microphones are the silent witnesses of music, speech and sound. Unlike acoustic instruments or the human voice, they only become audible indirectly with the help of speakers or headphones. This means that microphones don't produce their own sounds but act as the catalyst for sound to leave a fingerprint on the recorded signal. Through their specific electro acoustic sound and design characteristics, microphones will create your preferred sound events during the recording process.

2.1 What’s behind the DrumMic’a! Software?

The mechanical and sound specific differences in microphones as well as the varied possibilities of positioning the mic in front of instruments and voices can lead to very different results in music production. With the differences being significant and style-defining, it could even be said that the choice of microphones, mic placement and recording room are as relevant as the processing phase with the mixing desk and sound effects – both analogue and digital.

Sennheiser and Georg Neumann Berlin have set a quality standard in microphone design and, for many decades, are known as global innovators. Microphones of both brands can be found in the inventories of nearly every professional recording and production studio around the world, as well as on the technical tour riders of most national and international music greats.

Why did we come up with this software? – Listen, understand, learn and improve.

DrumMic'a! was designed to emulate a controlled studio environment in order to experience and compare a selection of high-class Sennheiser and Georg Neumann microphone models. It provides orientation in one of the most complex areas of sound engineering and offers recommendations in mic selection and placement as well as in post recording processing.

FOR EXAMPLE
Working with a real high class drum kit · Recorded with high end microphones · In a real professional recording studio · Played by a real professional drummer · Processed via the integrated studio software

As a plug in inside a DAW, DrumMic`a! can be easily integrated into existing recording projects by the sound engineer, band or solo musician.

For the home recording amateur as well as for the experienced sound engineer who wants to widen his knowledge this software offers enormous possibilities to improve the engineering skills for every future music project.

Sennheiser and Georg Neumann Berlin are committed to the highest sound standards, so they decided to develop the software DrumMic'a!, which will be made available to the public via a freeware license.

3 An in-detail look – Production technique

3 An in-detail look

Choice of microphones: 15 different types of microphones by Sennheiser und Georg Neumann.Berlin miking 9 different parts of a drum-kit. (see chapter 3.2). We used famous classics of sound recording history e.g. the Neumann U 87 or the Sennheiser MD 421. We also used newer generation microphone types like the Neumann D-01, as well as a selection from the Sennheiser evolution series.

We recorded 25 velocity layers as well as 6 "Round Robin" takes to reproduce a lively and authentic sound of the DrumMic`a!.

Mixing Desk: Solid State Logic SL 4064 E
Recorded with ProTools I Conversion: Digidesign 192 I/O
The recordings were made in 24 bit linear without the use of any compressors filters or other sound processing gear. We did this to achieve an unbiased comparison of microphone models and positioning. This gives the user every opportunity during post processing. The session was recorded on a WAHAN Acrylic-Set with SABIAN cymbals and hi-hats.

3.1 First Steps – Overview

The user interface of DrumMic'a! runs with 5 separate menu windows: BEATS, DRUMS, MIXER, MIC SEL and OPTION. The separate windows are selected via the navigation bar of the instruments as well as via a logical linkage on the control elements inside the screens.
The order of navigation is from left to right according to the recording chain of the studio workflow.

The BEATS menu allows pre-listening and offers the possibility to export more than 1300 MIDI Files. That's what makes DrumMic'a! play and groove ... The Midi grooves determine the kind of of rhythms the virtual drummer is supposed to play.

The DRUMS menu gives you an overview of the original drum-kit and the selected microphones. Clicking on one of the microphone positions navigates you to the Microphone Selection menu (MIC SEL).

The MIC SEL menu lets you compare and switch between the different microphone types and miking procedures via mouse click.

The MIXER window acts as an extensive post recording editing tool for each individual signal as well as a specified drum mixing desk. It gives you the opportunity to to save your own instrument settings or select one of the Factory Presets.

The OPTION menu rounds off the software with several adjustment possibilities for MIDI Dynamic Performance, MIDI-Mapping, resonance of the snares, as well as routing to individual outputs.

3.2 The Microphones

For DrumMic'a! a top-of-the-range Wahan drum-kit was recorded by professional sound engineers, musicians and producers. The drums were miked in extensive fashion with up 4 alternative microphones (stereo pairs as overheads) in each position. The following positions were recorded.

HiHat (top angled) · Snare (top) · Snare (bottom) · One microphone for each of the three toms (top) · Bass Drum (inside) · Bass Drum (outside) Overheads (2 stereo pairs in AB, 2 stereo pairs in XY)

To mike up the drum-kit an extensive selection of microphones from the Sennheiser und Neumann.Berlin portfolio were used. The selection contains microphone classics such as the famous Neumann U 87, the Sennheiser MD 421 and MD 441. New technical innovations like the digital Neumann D-01 as well as the Sennheiser evolution drum microphones which are commonly used in live music were used as well. With all this, Drum Mic'a! offers the unique opportunity to experience a virtual drum-kit and interactively experiment with equipment worth several tens-of-thousands of Euros.

3.2.1 HiHat

KM 184

Acoustic aficionado. The Neumann KM 184 is the cardioid option in the flexible trio of microphones that make up the compact „Series 180" system. The extensive choice of accessories mean the KM 184 can be used for a wide range of instruments as spot microphone, or even a stereo pair as the main miking arrangement. The high-definition sound converter lends itself perfectly to recording cymbals and hi-hats in overhead positions.

switchable 10 dB pre-attenuation · very low noise
extensive dynamic range

e 914

A brilliant all-rounder for demanding tasks.
The Sennheiser e 914 is a superior-class condenser microphone with a full-bodied sound and excellent dynamics. A gentle high frequency emphasis gives it a silky, sophisticated character without ever being brash. Its linear transient response accurately captures the temperament of each set, even at very high sound pressure levels.

- three pre-attenuation modes · choice of three bass roll-off/cut-off characteristics · handles very high sound pressure levels

MKH 8040

Modular modern classic. The cardioid Sennheiser MKH 8040 is suitable for many applications: it significantly reduces the pick-up of reflections without colouring the sound. This is very helpful in rooms with poor acoustics, and where closely-placed instructions need to be recorded discreetly, for example the individual parts of a drum-set.

- modular design
- wide frequency response 30 to 50.000 Hz

MK 4
All-round talent for capturing sound: the Sennheiser MK 4 is a large-diaphragm, true condenser microphone. It offers a detailed sound for vocals and many instruments. Featuring outstanding sound quality, the MK 4 is easy to handle and excellent value for money, making it an ideal choice for project studios and home recordists.

low self-noise and high maximum sound pressure levels · capsule internally shock-mounted to minimize noise from vibrations · 24-carat gold-plated diaphragm

3.2.2 Bass Drum (inside)

e 901
Balanced sound to set and forget. The Sennheiser e 901 was specially designed to be the perfect boundary microphone for kick drums. Highly robust and step-resistant, it delivers an accurate and dry sound.

Frequency response optimized for kick drums · lightning-fast attack no stand needed for kick drum applications · handles very high sound pressure levels

MD 421 II

Complex acoustics for any situation. The MD 421 II is one of the best known microphones in the world. Its excellent sound qualities enable it to cope with the most diverse recording conditions and broadcasting applications. The five position bass control underlines its ‚all-round' qualities; even with instruments with high dynamic output like toms and bass drums, the MD 421 II is a reliable sound transducer – even coping excellently with martial sound pressure levels.

- five position bass roll-off switch · clear sound reproduction for highly demanding tasks

e 902

Profound bass and precise punch: That is what you can expect from the Sennheiser e 902. The dynamic instrumental microphone was developed especially for the low sound spectrum and extremely high sound pressure levels. It sounds clear and full-bodied on kick drums, bass amps, saxophones and brass instruments and delivers a solid low-end.

- sound from warm and round to sharp, depending on positioning
- integrated microphone stand in rugged metal housing
- shock-mounted capsule

3.2.3 Bass Drum (outside)

TLM 170 R
The truth, the whole truth and nothing but the truth. The Neumann TLM 170 R condenser microphone is – compared to many other microphones with a strong personality – the reference in sound fidelity.
The large diaphragm microphone offers the highest flexibility for almost all microphone tasks in the studio, due to its multiple directional pattern, sensibility switch and bass roll-off.

extremely low noise · impressive dynamic range · very clear sound characteristics.

D-01
Digital Neumann sound. With the Solution-D microphone system, Neumann manages to transfer the dynamic range and signal fidelity of the best analogue studio microphones to the digital area. D-01 is the universally usable large-diaphragm microphone of the system, with 15 remotely-controllable polar patterns.

extremely high dynamic range of more than 130 dB · unequalled transparency and faithful reproduction · extensive monitoring, control and audio options due to integrated digital signal processing, as well as PC and MAC compatibility.

3.2.4 Snare (top)

MD 441
Dynamic classic. The Sennheiser MD 441 is a high-value, universally applicable microphone. Its acoustic properties are almost equivalent to those of condenser microphones: fantastically accurate signal response and low distortion are ensured, even with the highest sound pressure levels. This makes the MD 441 the perfect sound transducer for percussive, dynamic sound events.

excellent feedback rejection · spring capsule mounting provides low sensitivity to handling noise · five position bass roll-off switch · brilliance (treble boost) switch

e 904
With its consistent frequency response, the Sennheiser e 904 creates wonderful sound that is as transparent as it is balanced. This sound can easily be shaped afterwards and embedded into the drum mix thanks to its precise attacks and voluminous body.

transparent and balanced sound for drums and percussion ·
ideal for toms and snare drums due to its compact build and special clip ·
excellent sound profile suitable for all percussion styles

KM 184
see HiHat

3.2.5 Snare (bottom)

e 906
Mid spectrum lover. Sennheiser's instrumental microphone e 906 is an excellent choice for snare, percussion and brass instruments. It conveys the definition range of these instruments accurately and linearly.

high-resolution, natural sound
switchable presence filter with choice of three sound characteristics (boosted presence range, normal, attenuated presence range)
rugged metal housing

KM 184
see HiHat

3.2.6 Toms

e 904
see Snare (top)

MD 421-II
see Bass Drum (inside)

U 87AI
The Neumann classic. World famous, multiple award-winning, copied in vain several times, and still unequalled in sound. The U 87 by Georg Neumann has three directional patterns and switchable pre-attenuation which makes it the universal choice for recording studios, broadcasting as well as film and television.

classic studio microphone for solo and background vocals · spot microphone, ideal for percussion and overhead microphone positions

3.2.7 Overheads

e 914
see HiHat

KM 184
see HiHat

USM 69 I

High-end in stereo. The Neumann USM 69 i stereo condenser microphone is a sophisticated studio microphone for intensity stereo recording, suitable for high-class XY and MS recordings. With its rotatable two-capsule design, the UMS 69 i is the top solution for operation in a one-point overhead position as well as for drum recording.

very low noise · MS- or XY-stereophony
aperture and pick-up angles freely selectable

MKH 800

High resolution. The Sennheiser MKH 800 is a high-end condenser microphone – and the first microphone in the world to fully exploit the extended frequency range of the new high bit-rate standards of advanced digital recording systems. With its five switchable directional patterns, the MKH 800 is a superior microphone for every recording application. Its fantastic transparency and absolute minimum colouration make it the perfect choice for cymbals and hi-hats.

extremely low self-noise ·
switchable pre-attenuation · roll-off filter and treble emphasis
unparalleled transmitting performance

You can access the 5 menu windows and the MIDI Beats section via the main menu of the software in the upper right corner of DrumMic'a!

4 Operating the DrumMic'a!

4 Operating the DrumMic'a!

You can access the 5 menu windows and the MIDI Beats section via the main menu of the software in the upper right corner of DrumMic'a!

START / STOP. Plays the currently loaded Midi file from the BEATS section. All MIDI Grooves, Intros, Fills as well as Endings are looped. This means that they will continue to play as long as the PLAY button is active.

BEAT-DISPLAY. Shows the name of the selected MIDI BEAT. You can also drag the selected MIDI BEAT out of the display field directly into the MIDI track of your DAW via drag and drop.

BEATS. BEATS Menu opens a large selection of MIDI Beats from different musical styles and genres.

DRUMS. Changes the view in which the complete drum kit incl. the currently selected microphones are displayed.

MIXER. Opens the internal mixer of the DrumMic'a.

MIC SEL. Navigates to the microphone selection page for the currently selected microphones.

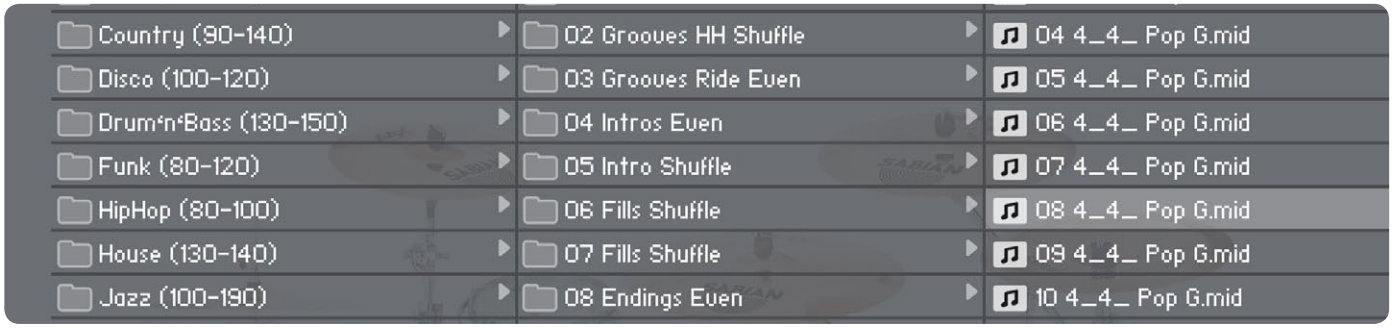
OPTION. switches to the option menu.

4.1 BEATS – Menu

DrumMic'a! comes with a selection of lively sounding MIDI beats for several specific genres. The patterns were recorded by a professional drummer via MIDI drum-kit and programmed to easily fit into the workflow of your DAW. You can select the Beats by double clicking onto the jew. Name of the file and loaded either into the MIDI File Player where it can be started with the Play - Button or dragged or dragged directly into your DAW.

SELECTING A MIDI BEAT

The beats are structured into 3 columns by Music Genre and Song Part.



In the left column you will find a large selection of musical styles and genres. By clicking onto of the genres you will be able to select the appropriate song part in the middle column.

The middle column offers you many song parts (Intros, Fills, Endings and Grooves) The availability of the song parts can vary depending on the genre. By selecting the song parts, a column on the right side opens up with matching MIDI Beats.

The right column only contains the MIDI Beats without any further sub-folders. Clicking a MIDI Beat will load the MIDI FIle it into the player of DrumMic'a!

PLAYING THE MIDI BEATS

By pressing the Start / Stop button in the Main Menu of DrumMic'a! the MIDI Beat will begin to play. While listening to the MIDI Beat can already load another beat.

USING THE BEATS INSIDE YOUR DAW

When you operate DrumMic'a! as a plug in inside your DAW you can use the MIDI beats directly as a MIDI track inside your project. To do this you need to select a MIDI Beat and load into the MIDI File player of DrumMic'a! for it to appear in the PLAY Display. Klick onto the display and drag it over into the MIDI Track of your DAW.

4.2 DRUMS – Menu

The DRUMS Menu offers you a view of the complete drum-kit and the currently selected microphones.

By clicking a microphone position you can access the MIC SEL Menu where you can choose from a selection of different microphones assigned to the individual position. A permanently displayed blue frame around a microphone indicates that the microphone has been selected and the signal that the microphone is picking up can now be processed in the MIXER with its EQ, TRANS DESIGNER and COMPRESSOR (see MIX Menu ‚Select' Button).
For a detailed description of all the microphone used please see chapter 3.2.

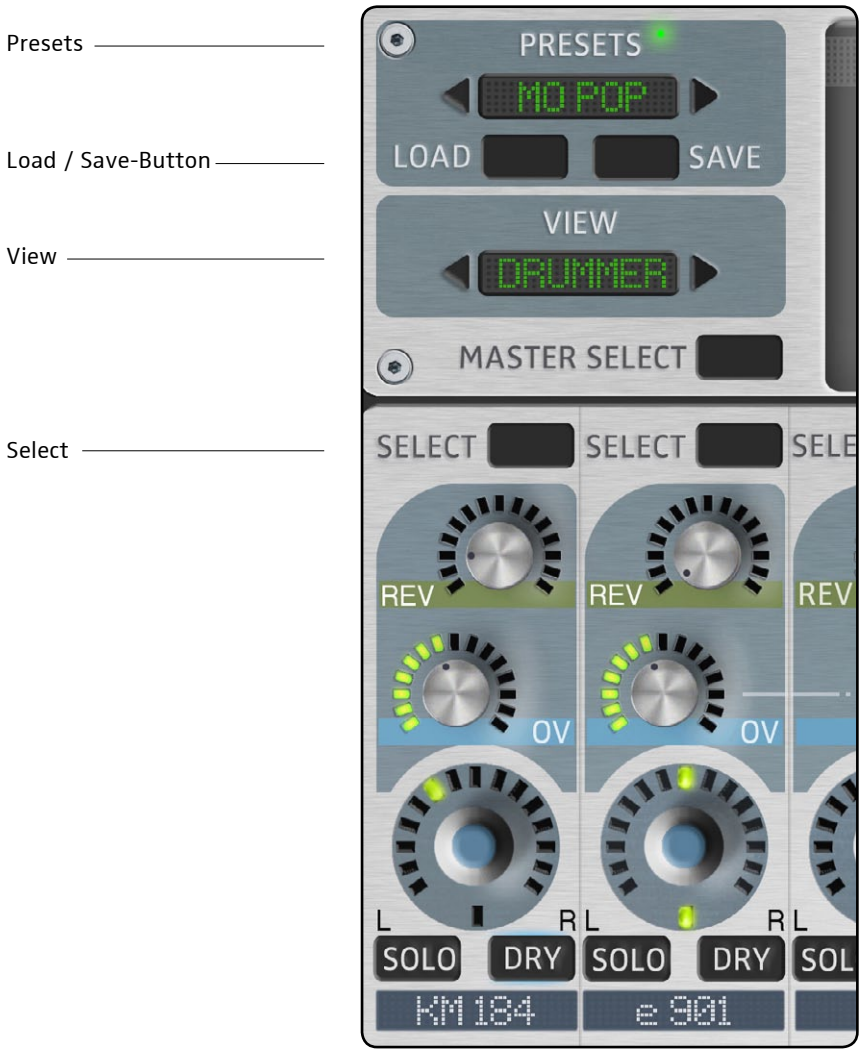
4.3 MIXER – MENU

Each separate microphone signal converges into the mixer of DrumMic'a!. Just like a mixing desk in a real recording studio. Every microphone signal is allocated to a separate channel. This means that every individual signal and every instrument has its own channel strip, where the signal can be processed further. The mixer was specifically optimized for the sound processing of drums. It offers
channel strips for all the microphone signals, as well as one reverb channel and one stereo master channel. All microphone channel strips are constructed in similar fashion. The reverb channel strip as well as the stereo master strip have some unique features which will be explained in detail later in this manual.

1. PRESETS
DrumMic'a! features 30 factory presets at time of delivery, that can be switched by using the arrow buttuns beside the display. Parameter changes of a user preset are indicated by the green light above the display. By using the LOAD / SAVE dialogue you can also save your own settings as user presets or load others externally.

2. VIEW
DrumMic'a! may be used in various steps of the music production process: the programming of MIDI drum grooves by drummers as well as integration of DrumMic`a! into the mix within a song arrangement. Both situations often require opposing stereo panorama settings for the correct sonographic localization of any single instrument. With the dedicated arrow buttons you can easily switch between AUDITORY and DRUMMER VIEW, toggling all channels´ panorama settings with one click.

3. SELECT
By clicking the select button the multi effect editor of the channel will be loaded into the display of the mixer. This allows you to operate the the individual effects for the channel. You can only select one channel at a time. By clicking the master select button the full stereo mix of the drumkit can be processed or adjusted.

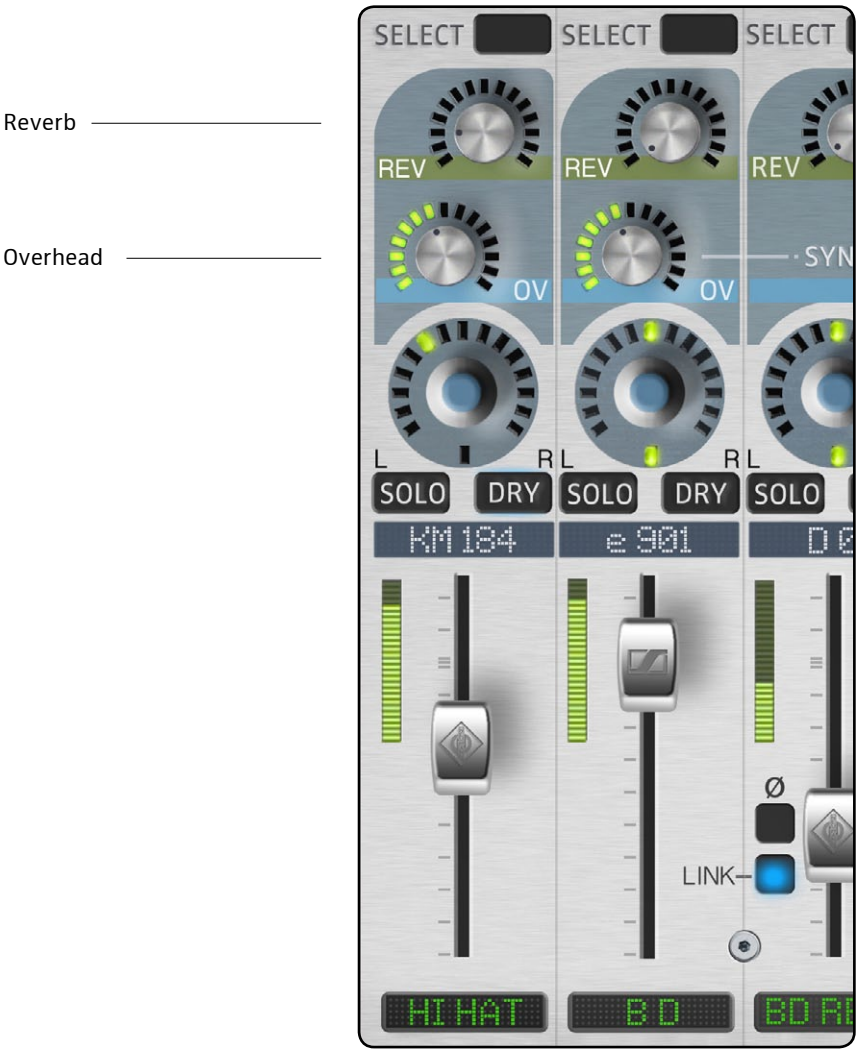


4. REVERB (REV)
This control knob Determines the amount of reverb for each channel. If the control knob is turned all the way to the left no reverb will be added to the signal. The more you turn the control knob to the right, the more reverb will be added. Adjusting the reverb (see chapter 2.6.3)

5. OVERHEAD (OV)
You can adjust the relation of close and overhead miking for every instrument of the drum-kit. Adjustments are made via the control Knob OV. If the control Knob is turned all the way to the left with no LED lights blinking, none of the overhead signal will be audible. You will only hear the close Mic. The more you turn the OV control Knob to the right, the louder the overhead microphone of the instrument will become. The amount of the overhead signal is independent of the general volume of the channel, controlled by the fader. It runs as „pre-channel".

> Tip: it is possible to listen to the overhead signal on its own. This can be achieved by turning the OV control knob all the way to the right while turning the channel fader all the way down.

There is only one control Knob for each individual instrument. For example, there is only one control knob for the snare drum and one for the bass drum even though these instruments are close-miked with 2 microphones.



6. PANORAMA (PAN)
With this control you can pan the signal to the left or to the right.
If you leave the control in the middle setting, the signal will be equally loud on both channels. The overhead channel contains of stereo panorama controller.

7. SOLO
By activating the solo button you will hear the channel on its own – all other channels will be silenced. You can apply the solo mode to several channels at once by clicking the solo button on each of the channels. When you click the solo button again the function will be deactivated. If no channel is set to solo mode, all channels will be audible.

8. DRY
The dry control deactivates all effect settings – EQ - Transient Designer, Compressor and Reverb for all the selected channels. Clicking the dry control again will reactivate the whole effect chain.

9. MICROPHONE-LABEL
The microphone label displays the microphone that has been selected for the channel. By clicking on the label you will be navigated to the Mic Select menu of the applicable instrument.

10. FADER
With the fader you can adjust the loudness of the channel strip in the whole mix.

11. SPECIAL FEATURES OF THE BASS DRUM AND SNARE CHANNEL STRIPS (PHASE INVERT & LINK).
There are special features for the bass drum and the snare channel because the close miked signals for these instruments consist of two different microphones in different positions.

Phase Invert
With Phase Invert you can invert the phase of the bass drum rear and the snare bottom channel to avoid phase cancellation caused by the contrary directions of the microphones or to make use of certain filter and amplification effects.

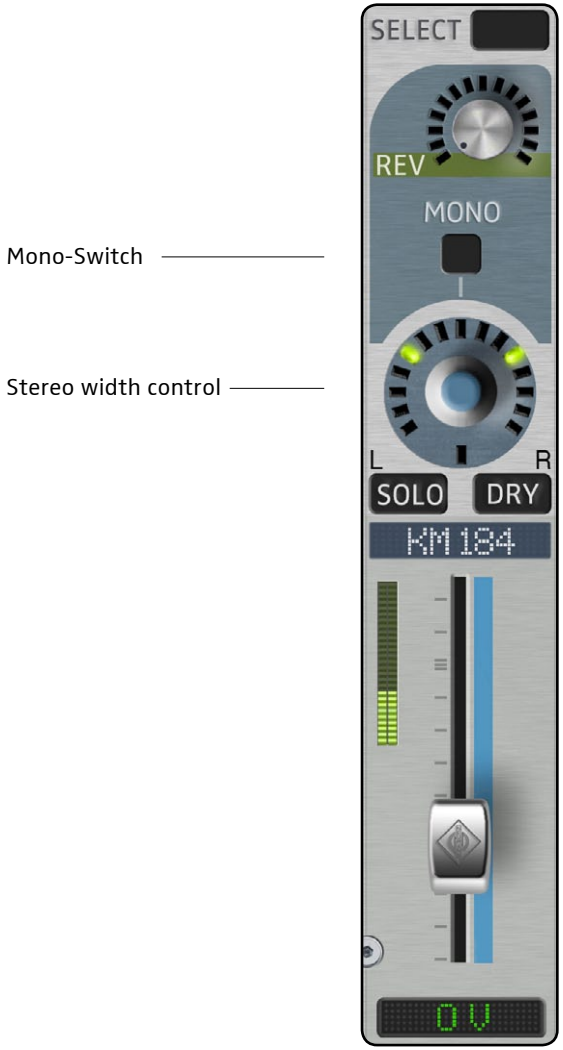
Link
With the link button you can easily adjust the channel faders of the bass drum and bass drum rear or snare and snare bottom at the same time. This makes it easy to adjust the instrument volume in the mix without changing the volume relation between the two microphones.

12. SPECIAL FEATURES OF THE OVERHEAD CHANNEL STRIP

The overhead channel strip obviously has no overhead control Knob.
The panorama settings also differ from the other channel strips. Instead of a panorama control you will find a control for stereo width as well as a mono switch.

Stereo width control
If you put this control to the extreme position (active LED 5.30 R and 6.30 L) you will hear the original stereo spread of the overhead microphones By turning the knob so that the LEDs converge on the middle, you will notice a narrowing of the stereo field. The stereo width will be indicated by the LEDs.

Mono-Switch
The mono switch turns the stereo signal of the overheads into a mono signal and the stereo width will automatically become a normal panorama control which can be panned left or right.

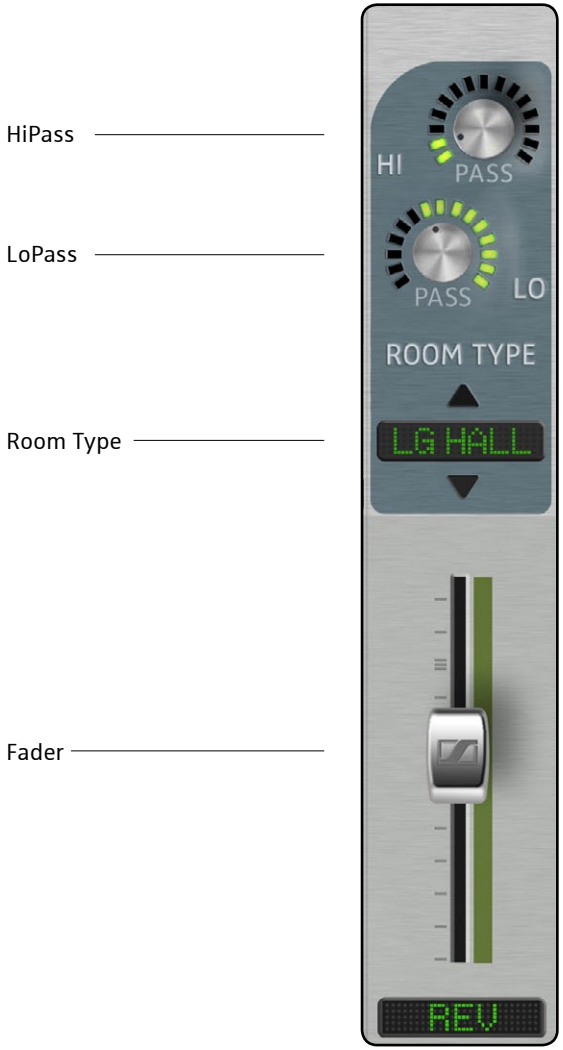


13. REVERB CHANNEL STRIP

The reverb channel strip allows you to adjust the type, volume and sound of the integrated convolution reverb for the drums. Generally, there's just one reverb available for the whole drum kit. The relation of the single drum instrument inside the room simulation is adjusted by the reverb control inside the instrument channel strip (see 6.4.4).

Volume control of the reverb channel.
With this control the volume of the convolution reverb is adjusted globally. Changes will affect all the signals that use reverb.

HiPass / LoPass
These two controls are simple frequency filters for the reverb channel. The hi-pass was designed to filter low frequencies out of the reverb signal. The higher it's set, the less low-frequencies are audible in the reverb signal. If you keep the control all the way to the left, the frequency spectrum of the room simulation will remain untouched.
The lo-pass does exactly the opposite. It is used to filter high frequencies and creates an impression of less reflection in the virtual room. The higher it's set, the less high-frequencies are audible in the reverb signal. If you keep the control all the way to the left the frequency spectrum of the room simulation will remain untouched.



Room Type
You can select different room types with the arrows above and under the room type display. The top arrow will access the next Room Type, the bottom arrow will go back to the previous one. The room display shows the currently selected room type.

4.3.1 Effect-Section

In the effect section, the sounds for every channel can be processed with the equalizer, transient designer and compressor. Via the select button, every individual signal can be loaded into the menu of the effect section. This also works in the master channel for the full stereo mix.

The equalizer enables the processing of the frequency spectrum of the sounds. It can boost or cut certain frequencies out of the sound.

Compressors are dynamic tools which automatically reduce the level of loud passages in a signal, thereby affecting the signal's dynamic range.

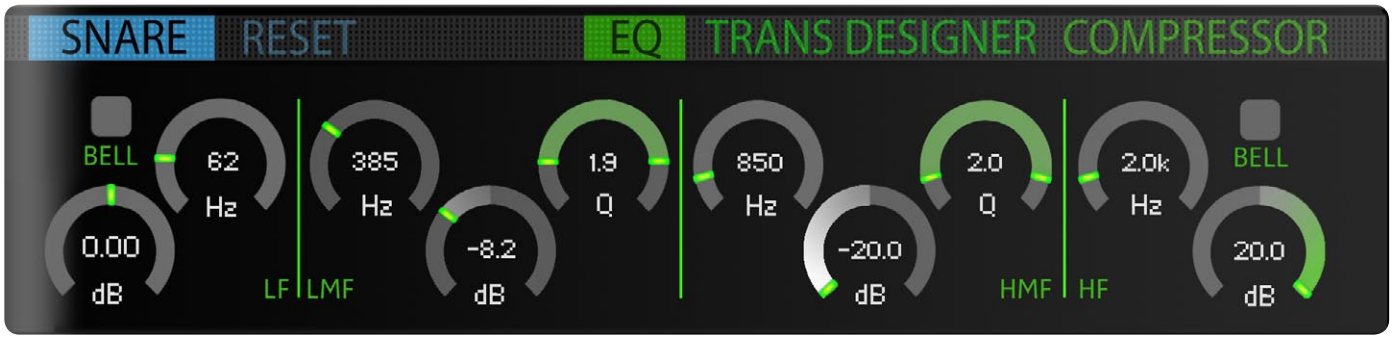
The transient designer is a very specific type of compressor. It's not triggered by the input level but by the envelope curve of the sound. It affects the attack and the release times of the sounds.

> The audio signal runs through the effect section in the following order:
> Equalizer —> Transient Designer —> Compressor

Left hand in the display the name of the selected mixing channel ist displayed. One click onto the word RESET will switch the actual effect stage to neutral value, means that the effect will get inactive. So you can easily determine how the effect modifies a single signal. A further click onto LAST EDIT will reload the former setting.

4.3.1.1 Equalizer (EQ)

The equalizer of DrumMica! is based on a solid G EQ from Native Instruments Kontakt. The G-EQ simulates the high-quality analogue circuits of a parametric 4 band EQ.



LF GAIN Adjusts the amount of boost or cut at the LF Frequency.

LF FREQ Adjusts the center frequency of the low frequency band at which the boost or cut will occur.

LF BELL Toggles the bell shape of the low frequency band. If turned off the band becomes a shelf.

LMF GAIN Adjusts the amount of boost or cut at the LMF Frequency.

LMF FREQ Adjusts the center frequency of the low-mid frequency band at which the boost or cut will occur.

LMF Q Controls the Quality (or Q) of the low-mid frequency band. For most EQs, the higher the quality, the narrower the frequency band, but with this EQ the control is reversed to match the hardware it emulates and becomes a bandwidth control.

HMF GAIN Adjusts the amount of boost or cut at the HMF Frequency.

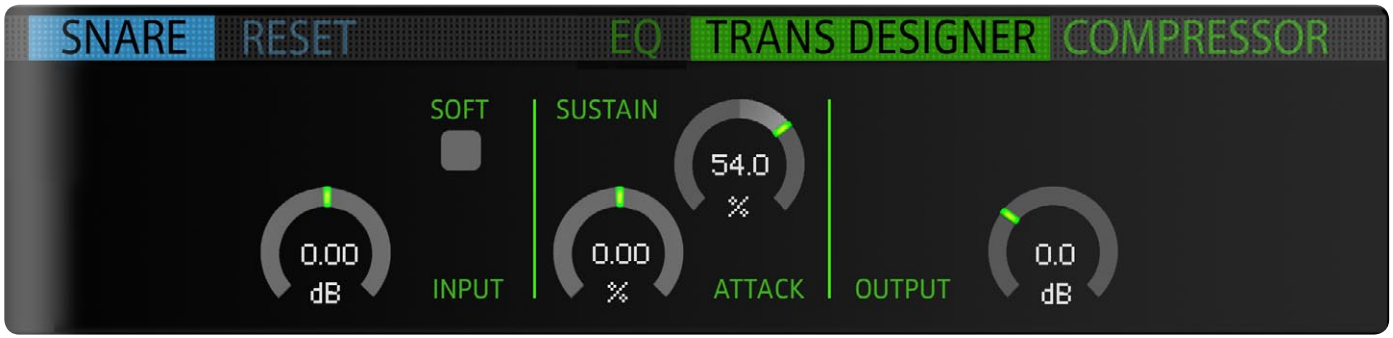
HMF FREQ Adjusts the center frequency of the high-mid frequency band at which the boost or cut will occur.

HMF Q Controls the Quality (or Q) of the high-mid frequency band. For most EQs, the higher the quality, the narrower the frequency band, but with this EQ the control is reversed to match the hardware it emulates and becomes a bandwidth control.

HF GAIN Adjusts the amount of boost or cut at the HF Frequency.

HF FREQ Adjusts the center frequency of the high frequency band at which the boost or cut will occur.

HF BELL Toggles the bell shape of the high frequency band. If turned off the band becomes a shelf.



SOFT Transient Designer is designed mainly to work on drums or percussive material, so certain input signals (for example: an acoustic guitar) may not work ideally in the default mode, so try switching this button on if you are encountering problems.

INPUT Controls the input gain to the effect.

ATTACK Controls the scaling of the attack portion of the input signal's volume envelope. In- creasing this parameter will add more punch and decreasing it will reduce sharp attacks.

SUSTAIN Controls the scaling of the sustain portion of the input signal's volume envelope. Increasing this parameter will add more body to the sound and decreasing it will reduce the sound's tail.

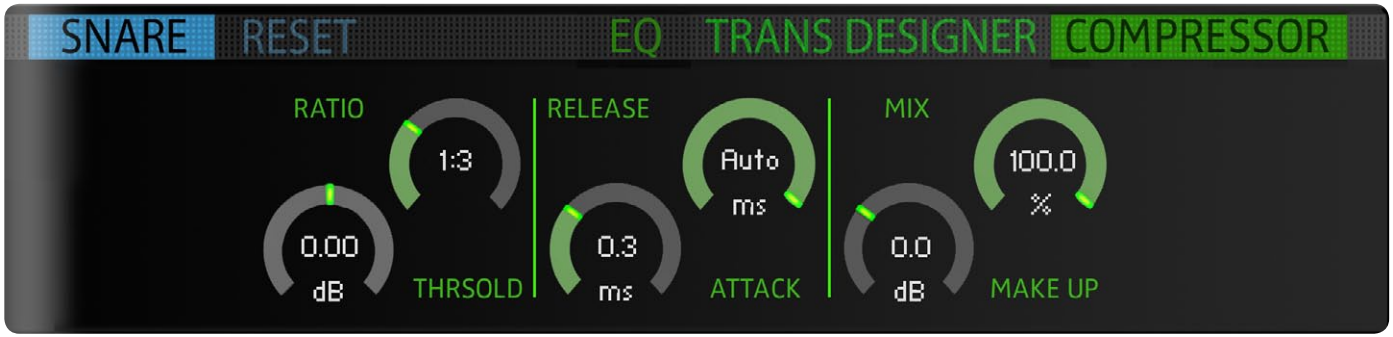
OUPUT Controls the output gain after the effect. For dynamic effects like compressors, this is very important.

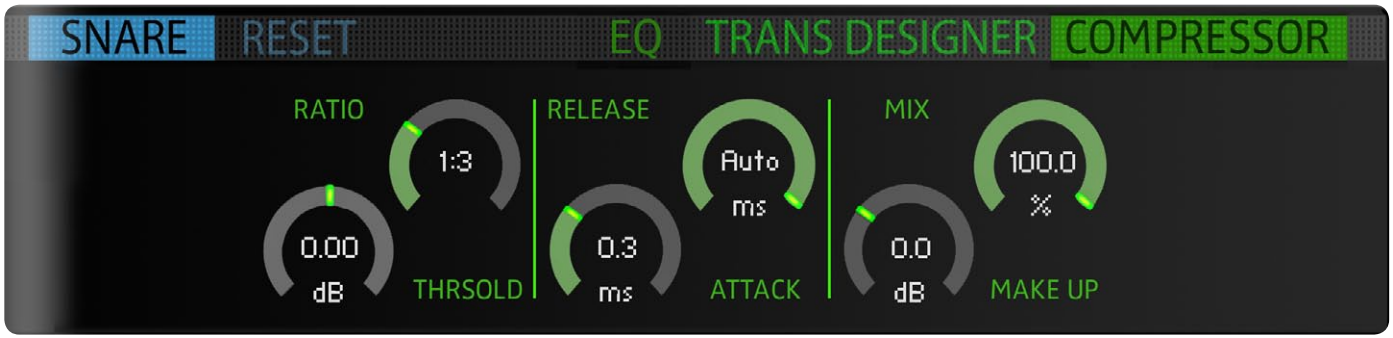
4.3.1.2 TRANS DESIGNER

DrumMic'a!'s integrated TRANS DESIGNER simulates an envelope triggered compressor.

4.3.1.2 COMPRESSOR

The DrumMic'a! integrated compressor emulates a classic analogue bus compressor. It will add a very specific characteristic to the sound.





RATIO Controls the amount of compression, expressed as a ratio of ''input level change'' against ''output level change''. A Ratio of 1:1 means that no compression will be happening. For example, a Setting of 4:1 means for every 4 decibel increase of amplitude above the threshold, the output will increase by only 1 decibel.

THRESHOLD sets a level above which the Compressor starts working. Only levels that exceed this threshold will be reduced by the compression; signals that stay below it will be left unprocessed.

RELEASE Adjusts the time the compressor will take to fall back to non-compression after the input signal falls below the threshold.

ATTACK Adjusts the time the Compressor will take to reach the full Ratio value after an in- put signal exceeds the Threshold level.

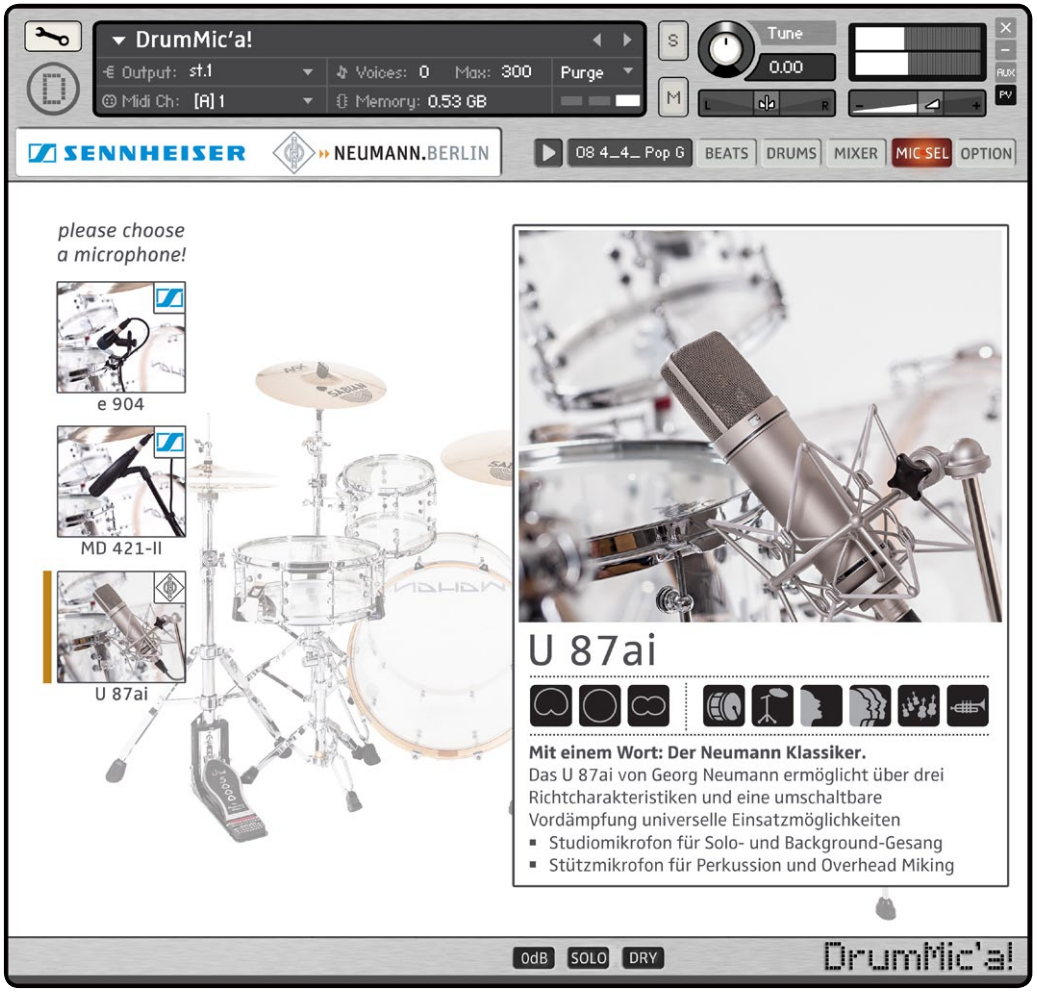
MAKEUP Controls the output gain of the compressed signal. Used to compensate for the gain reduction of the effect.

MIX Controls the dry/wet mix of the compressor. This can be used to create a parallel compression style routing, which increases the quieter signals rather than reducing the louder ones. At a setting of 100% you will only hear the compressed signal, at a setting of 0% you will only hear the unprocessed input signal.

4.4 Microphone Selection – Menu (MIC SEL)

The MIC SELECT Menu menu offers an overview of all the Sennheiser and Neumann microphones which are currently selected for each individual microphone position. On the right hand side you'll find some basic information about the selected microphone's strength, characteristics and use. Most importantly, by selecting a specific microphone signal you can get to know the most interesting part of the software: the sound of the microphones.

To change a microphone simply click on the appropriate picture in the gallery on the left hand side.
A coloured bar on the left side of the picture indicates which microphone is currently in use. By playing a midi beat while changing the microphone you can best hear how that sound changes.



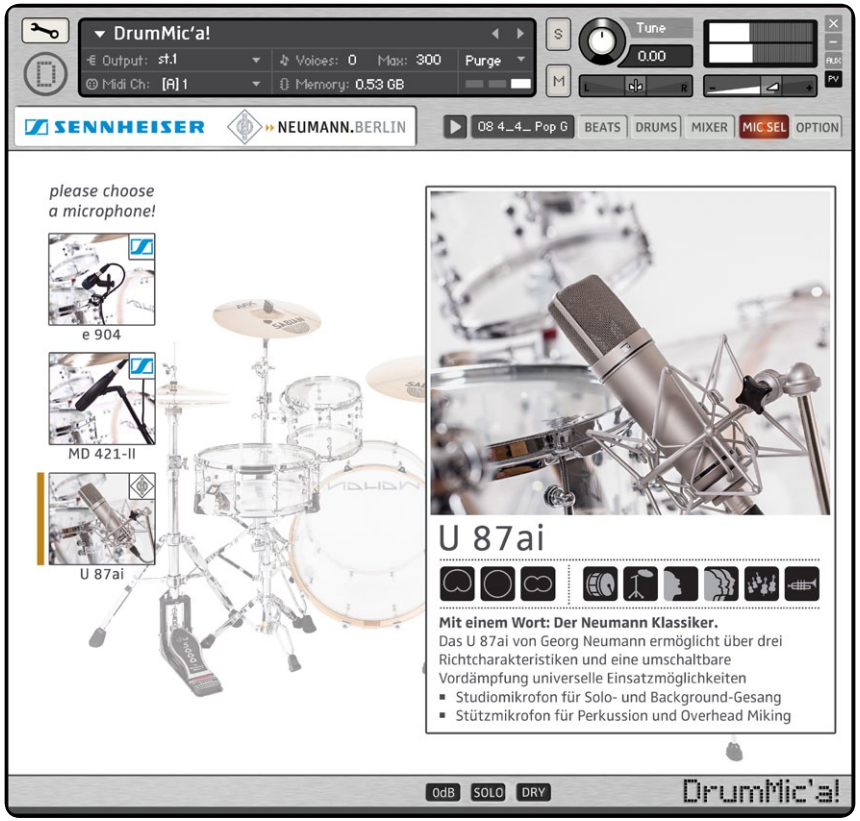
To best compare the sound characteristics of each microphone you'll find three buttons on the bottom of the screen.

0 DB
Puts the fader of this track inside the channel mixer to 0dB. This is helpful when the signal is very low in the main mix and you want to listen to it louder without wanting to navigate to the MIXER Menu.

SOLO
Mutes all other channels so that you can listen to this channel on its own. You can put several channels into solo mode at the same time. (MIXER Menu).

DRY
Switches of all effects (equalizer, transient designer, compressor and reverb) so that you can listen to the unprocessed signal.

> Tip: A second click on the selected microphone will navigate you back into the DRUMS menu. For an overview about all microphones and their characteristics see chapter 3.2.



4.5 OPTION-Menu

Further settings like the assignment to single outputs, the velocity behaviour as well as the drum mapping of the DrumMic'a! will be found in this menu.

1. VELOCITY

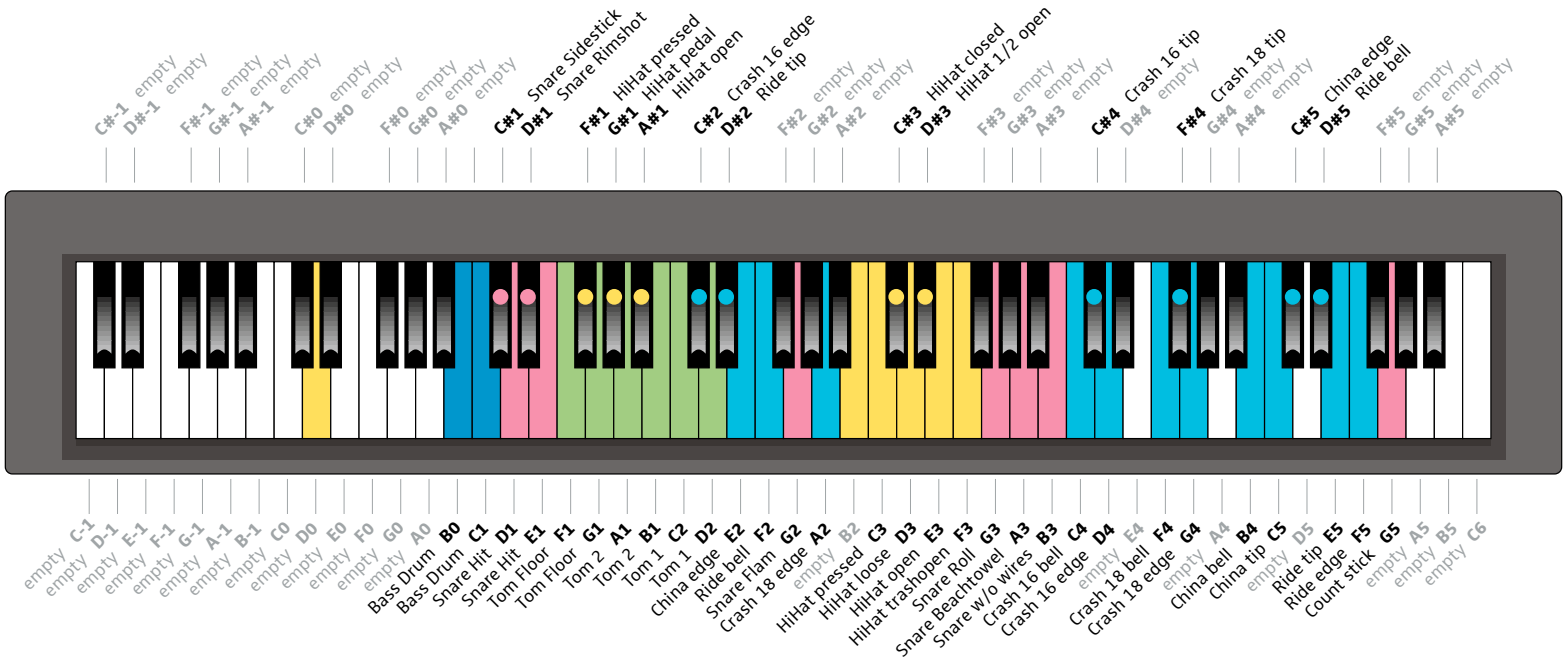
The velocity curve determines the response characteristics of the keys (while using a MIDI keyboard) or of the drum trigger when you trigger samples from the DrumMic'a! The steeper (progressive) the curve runs from the bottom left to the top right the more sensitive the DrumMic'a! reacts to the touch of the keys or the drum trigger. You can program the curve manually by clicking and moving the grid inside the graphic. You can also select from three different preset curves. Those will determine a linear, a degressive or a progressive response characteristic from the triggered samples.

2. MIDI MAPPING

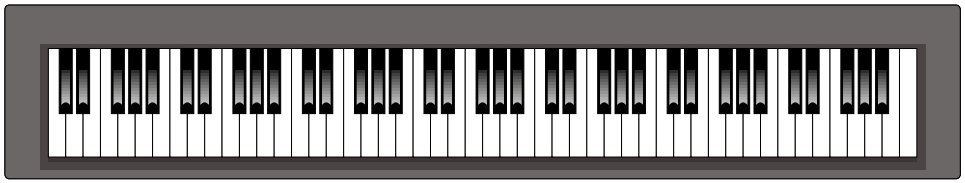
MIDI mapping is the schematic arrangement of all the drum instruments on a MIDI keyboard or Drum Trigger. Every instrument (snare, bass drum, crash cymbal) is assigned to a specific key on the keyboard. (e.g. C4, D2 or E4). As there is no universal standard for the keyboards or the drum trigger assignment and as you find many different implementations of those you need to be able to Select and assign individual mappings. The following list gives you the midi mappings used in DrumMic'a!

Default (GM)

these mappings are suitable for MIDI keyboards and correspond with the General Midi standard.

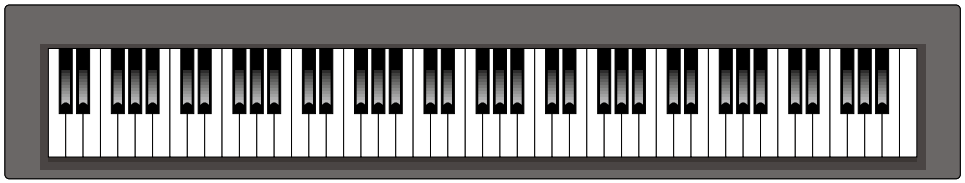


V-Drums TD-12/20



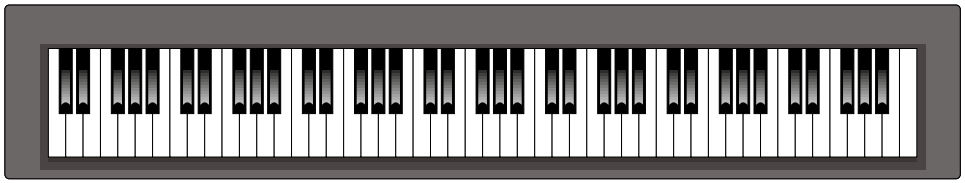
C-2	Crash 18 tip	**A#1**	HiHat closed	**B3**	HiHat pressed	**D#5**	Tom Floor
C#-2	Ride bell	**B1**	Count stick	**C4**	HiHat pressed	**E5**	Tom 1
A#-1	HiHat closed	**C2**	Tom 1	**C#4**	HiHat pressed	**F6**	Tom 1
E0	Snare Rimshot	**D2**	Snare Rimshot	**D4**	HiHat pressed	**F#6**	Tom Floor
F0	Snare w/o wires	**D#2**	Ride edge	**D#4**	HiHat loose	**G6**	Tom Floor
F#0	Snare Flam	**E2**	Crash 18 bell	**E4**	HiHat 1/2 open	**D#7**	Crash 16 edge
G0	Snare Hit	**F2**	Ride bell	**F4**	HiHat 1/2 open	**G7**	Count stick
G#0	Snare Roll	**F#2**	Crash 16 edge	**F#4**	HiHat open		
B0	Bass Drum	**G2**	Crash 16 bell	**G4**	HiHat trash open		
C1	Bass Drum	**B2**	China edge	**G#4**	Tom 2		
C#1	Snare Sidestick	**C#3**	Crash 18 edge	**A4**	Snare Hit		
D1	Snare Hit	**D3**	Ride edge	**A#4**	Snare Hit		
E1	Snare Hit	**D#3**	Ride tip	**B4**	Snare Hit		
F#1	HiHat pressed	**G#3**	HiHat closed	**C5**	Snare Hit		
G#1	HiHat pedal	**A3**	HiHat closed	**C#5**	Tom 1		
A1	Tom Floor	**A#3**	HiHat pressed	**D5**	Tom 2		

V-Drums TD 3/6



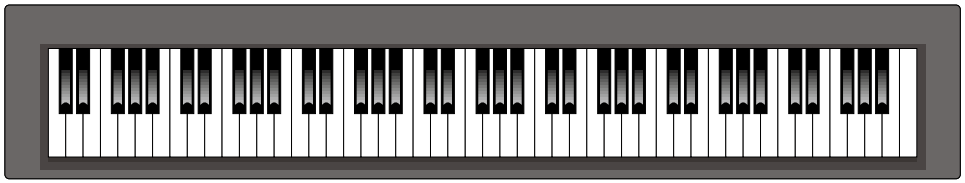
C-2	Crash 18 edge	**A1**	Tom Floor	**B3**	HiHat pressed	**D#5**	Tom Floor
C#-2	Ride edge	**A#1**	HiHat closed	**C4**	HiHat pressed	**E5**	Tom 1
D-2	Ride edge	**B1**	Count stick	**C#4**	HiHat pressed	**F6**	Tom 1
A#-1	HiHat closed	**C2**	Tom 1	**D4**	HiHat pressed	**F#6**	Tom Floor
C#0	Ride tip	**C#2**	Crash 16 bell	**D#4**	HiHat loose	**G6**	Tom Floor
E0	Snare Rimshot	**D2**	Snare Rimshot	**E4**	HiHat 1/2 open	**D#7**	Crash 16 edge
F0	Snare w/o wires	**E2**	Crash 18 tip	**F4**	HiHat 1/2 open	**A7**	Count stick
F#0	Snare Flam	**F2**	Ride bell	**F#4**	HiHat open		
G#0	Snare Roll	**F#2**	Ride bell	**G4**	HiHat trash open		
B0	Bass Drum	**A2**	Crash 18 bell	**G#4**	Tom 2		
C1	Bass Drum	**A#2**	Snare Hit	**A4**	Snare Hit		
C#1	Snare Sidestick	**B2**	China edge	**A#4**	Snare Hit		
D1	Snare Hit	**F3**	Crash 16 edge	**B4**	Snare Hit		
E1	Snare Hit	**G#3**	HiHat closed	**C5**	Snare Hit		
F#1	HiHat pressed	**A3**	HiHat closed	**C#5**	Tom 1		
G#1	HiHat pedal	**A#3**	HiHat pressed	**D5**	Tom 2		

EZ Drummer



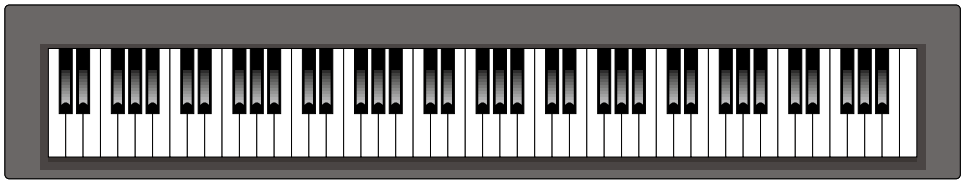
C-2	Snare Hit
C#-2	HiHat pressed
D-2	HiHat pressed
A#-2	HiHat closed
B-2	Tom 1
C-1	Snare Rimshot
D-1	Tom Floor
D#-1	Tom Floor
E-1	Tom 1
F-1	HiHat trash open
F#-1	Tom 2
G#-1	HiHat 1/2 open
A-1	HiHat pedal
A#-1	Tom 2
C#0	Tom 1
D0	Ride edge
D#0	Ride bell
G#0	Snare Hit
A#0	Bass Drum
B0	Bass Drum
C1	Snare Roll
C#1	Snare Hit
D1	Snare Hit
D#1	Snare Rimshot
E1	Snare Flam
F#1	HiHat closed
G#1	HiHat 1/2 open
A#1	Tom 1
C#2	Ride tip
G2	Ride edge
G#2	Ride bell
B2	Crash 16 edge
D3	Count stick
D#3	HiHat pressed
E3	HiHat open
F3	HiHat pressed
F#3	HiHat loose
G3	HiHat pressed
A3	HiHat closed
A#3	HiHat closed
B3	Snare w/o wires
A4	Tom Floor
C5	Tom Floor
D#5	China edge
F6	Count stick
G#6	HiHat pressed
E7	Crash 16 edge
F#7	Crash 16 bell
G#7	Crash 18 edge
A7	Crash 18 tip
A#7	Crash 18 bell
C#8	Snare Hit
D8	Snare Hit
D#8	Snare Sidestick

Addictive Drums



G-2	HiHat closed
G#-2	HiHat 1/2 open
A-2	HiHat pressed
A#-2	HiHat closed
B-2	HiHat pressed
C-1	HiHat pedal
G-1	Tom 1
G#-1	Count stick
A#-1	Tom 2
B-1	Snare Rimshot
C#0	HiHat closed
D0	Snare Hit
D#0	Snare w/o wires
E0	Snare Hit
F0	Snare Roll
F#0	Snare Rimshot
B0	Bass Drum
C1	Bass Drum
C#1	Snare Hit
D1	Snare Hit
D#1	Snare Sidestick
E1	Snare Hit
F1	Snare Hit
F#1	Snare Flam
G1	Snare Hit
A1	China edge
A#1	Crash 16 bell
C2	HiHat loose
C#2	HiHat closed
D2	HiHat pressed
D#2	HiHat pressed
E2	HiHat 1/2 open
F2	HiHat pressed
F#2	HiHat open
G2	HiHat trash open
G#2	Tom 2
A2	Tom 1
A#2	HiHat pressed
B2	HiHat open
C3	Ride edge
C#3	Ride bell
A3	Tom Floor
B3	Tom 1
F#4	Crash 18 bell
G#4	Ride bell
A4	Crash 16 edge
C#5	Crash 18 edge
D5	Crash 18 tip
D#5	Ride edge
E5	Ride tip
B5	Tom Floor
C#6	Tom Floor
D#6	Tom 1
E6	Tom Floor
D7	Count stick
B7	Crash 16 edge

Superior Drummer



C-2	HiHat pressed	**D#0**	Crash 16 edge	**B2**	HiHat closed	**D7**	Crash 16 edge
C#-2	HiHat pressed	**G0**	Snare Hit	**C3**	HiHat pedal	**E7**	Crash 16 bell
A-2	HiHat loose	**A0**	Bass Drum	**C#3**	HiHat closed	**F#7**	Crash 18 edge
A#-2	Tom 2	**A#0**	Bass Drum	**D3**	HiHat pressed	**G7**	Crash 18 tip
B-2	Tom 1	**B0**	Snare Sidestick	**D#3**	HiHat pressed	**G#7**	Snare Hit
C-1	Snare Rimshot	**C1**	Snare Hit	**E3**	Snare Rimshot	**A7**	Snare Hit
D-1	Tom 1	**C#1**	Snare Roll	**G3**	Snare Flam	**A#7**	Snare Hit
D#-1	Tom Floor	**D1**	Snare Hit	**G#3**	Snare w/o wires	**B7**	Snare Hit
E-1	HiHat 1/2 open	**E1**	HiHat pressed	**A#4**	Ride edge		
F-1	HiHat open	**F#1**	HiHat closed	**B4**	Ride tip		
G-1	HiHat open	**G#1**	HiHat trash open	**C5**	Ride edge		
G#-1	HiHat pressed	**A#1**	Count stick	**C#5**	Ride bell		
A-1	Tom 1	**C2**	Tom 1	**D#5**	Count stick		
A#-1	Tom 2	**E2**	Ride bell	**E6**	HiHat closed		
B-1	HiHat 1/2 open	**G2**	China edge	**F6**	Tom Floor		
C#0	Crash 18 bell	**A#2**	Tom Floor	**G#6**	Tom Floor		

3. SNARE BLEED

When a snare drum or a bass drum is hit, the snare of the snare drum will naturally start to reverberate. This sound is called snare bleed. Depending on personal taste or style of music this sound can be either desirable or unwanted. With the snare bleed control you can adjust the amount of resonance. With the control turned all the way to the left, all snare bleed is deactivated.

4. SINGLE OUTPUT CHANNELS

Via this menu you can assign individual outputs to every microphone channel and route it in your DAW instead of using the internal mixer of DrumMic'a!

To do this you need to create single outputs inside KONTAKT as well as activate the applicable outputs inside your DAW. For the exact process please check the manual of your DAW. To assign the microphone channels to KONTAKT's outputs please select the applicable outputs in the drop down menu.

5 Glossary

Glossary

SNARE BLEED	the resonance of the reverberating snare caused by the sound of other instruments.
DAW	short for Digital Audio Workstation; software to produce and record music.
ARRANGEMENT-WINDOW	surface of a DAW where MIDI notes or sound are recorded.
DRUM KIT	term for all drum instruments grouped together.
EQUALIZER	sound processing tool that affects the frequency range of the sound.
COMPRESSOR	dynamic tool which automatically reduces the level of loud passages in a signal, thereby affecting the signal's dynamic range.
MIDI MAPPING	assigning sounds to MIDI-notes.

MIDI FILES trigger data for electronic instruments which can be loaded into the instrument.

ROUND ROBIN provision of multiple, slightly different samples for each note and velocity range which are then cycled between in a round-robin fashion when note repetitions are played; this eliminates the dreaded "machine gun effect", which is a dead giveaway of sampled instruments. Very effective in percussive instruments.

PRESET parameter-set used to define, save and load complete configurations within a software package.

TRANSIENT DESIGNER specific type of compressor which is not triggered by the input level but by the envelope curve of the sound. It affects the attack and the release times of sounds.

VIRTUAL DRUM-KIT Emulates a real drum-kit with many samples and dynamic layers.

DrumMic'a! is a virtual Drum Instrument based on Native Instruments' KONTAKT freeware player. KONTAKT freeware player is upgradeable to the full version: After logging in to the Native Instruments webshop with the exact same E-Mail address, that was used to activate DrumMic'a! – the best option will automatically be suggested:

www.native-instruments.com/de/products/komplete/synths-samplers/kontakt-5/pricing/

© Copyright 2013
Sennheiser
Vertrieb und Service GmbH & Co. KG
Karl-Wiechert-Allee 76a
30625 Hannover
www.sennheiser.de